lower attachment fitting assembly upon reassembly on Hawker Siddeley de Havilland Model DH–104 "Dove" airplanes. One of the inspections required by the AD is an eddy current or magnaflux inspection of the main wing spar lower pick-up fitting bore. It has recently come to the attention of the FAA that not all eddy current or magnaflux inspection equipment is suitable for the inspection of the type of ferrous material used in the Model DH–104 "Dove" airplane main wing spar lower pick-up fitting bores and that an inspection using some equipment might not adequately detect cracks in main spar lower pick-up fitting bores. Failure to detect a crack could result in an in-flight loss of a wing. In addition, the FAA has determined that Modification 686, which the AD requires to be incorporated on all "Doves" not already so modified, is not necessary on "Dove" airplanes incorporating certain modifications. Therefore, the AD is being superseded by a new AD which revises the instructions on inspection techniques and equipment and limits the incorporation of Modification 686 to those "Doves" which incorporate Modification 538. The FAA has further determined that when the proper inspection techniques and equipment are used, the repetitive inspection intervals specified in the AD are more stringent than are necessary, and therefore the new AD changes those intervals from 2,500 hours' time in service or 3 years, whichever occurs first, to 4,500 hours' time in service for the inspection of the bore of the wing main spar lower pick-up fitting and 6 years for all other inspections.

In addition, Hawker Siddeley Model DH–104 "Dove" airplanes which have been modified to incorporate Supplemental Type Certificate SA 1747WE are excluded from the requirements of this AD. AD 72–10–3, Amendment 39–1443, issued by the Western Region, is applicable to "Dove" airplanes incorporating STC 1747WE.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and good cause exists for making this amendment effective in less than 30 days.

In consideration of the foregoing, and pursuant to the authority delegated to me by the Administrator (14 CFR 11.89), § 39.13 of Part 39 of the Federal Aviation Regulations is amended by adding the following new airworthiness directive:

HAWKER SIDDELEY AVIATION LTD. Applies to de Havilland "Dove" Model DH–104 airplanes which have not been modified to incorporate Supplemental Type Certificate SA 1747WE.

To prevent a possible failure of the wing to fuselage attachment, accomplish the following:

(a) Within the next 25 hours' time in-service after the effective date of this AD, unless already accomplished in accordance with one of the AD's specified in subparagraph (a)(4), comply with subparagraphs (a)(1), (a)(2), and (a)(3), and thereafter comply with subparagraph (a)(2) at intervals not to exceed 6 years from the last inspection and comply with subparagraph (a)(3) at intervals not to exceed 4,500 hours' time in service from the last inspection.

(1) Inspect the bore of the wing main spar lower pick-up fittings for chrome plating in accordance with de Havilland Service Technical News Sheet, Series: CT(104), No. 178, Issue 1, dated July 10, 1961, or an FAA-approved equivalent. If a bore is found to be chrome plated, before further flight, replace the affected fitting with a serviceable fitting that does not have a chrome plated bore.

(2) Inspect the wing main spar lower pick-up fittings, the fuselage center section spar boom lugs, and the main wing to fuselage lower attachment bolts for corrosion, surface roughness, and signs of fretting in accordance with Appendix 1 of Hawker Siddeley Aviation Ltd., Technical News Sheet, Series: CT(104), No. 168, Issue 4, dated July 12, 1971, or an FAA-approved equivalent.

(3) Inspect the total length of the bore of the wing main spar lower pick-up fittings for cracks in accordance with Appendix 2, of Hawker Siddeley Aviation Ltd., Technical News Sheet, Series: CT(104), No. 168, Issue 4, dated July 12, 1971, or an FAA-approved equivalent. Eddy current equipment, of a manufacture not specified in the referenced service bulletin, may be used to comply with this subparagraph, if the equipment meets the sensitivity requirement contained in the referenced service bulletin, the equipment is suitable for inspection of ferrous materials, and the procedure used to operate the equipment complies with the equipment manufacturer's recommended operating instructions.

(4) Previous AD's on this same subject which may be used in establishing compliance with the initial inspection specified in paragraph (a) are: AD 70–15–6, Amendment 39–1033 issued on July 8, 1970; AD 70–12–8, Amendment 39–1009 dated June 8, 1970; AD 67–32–3, Amendment 39–513 issued November 9, 1967; AD 61–18–3, Amendment 329 to Part 507 issued August 25, 1961; and the telegraphic AD's dated May 28, 1970, and June 11, 1970.

(b) Each time the wing to fuselage lower joint is reassembled after any inspection required by this AD or for any other reason, apply corrosion protection in accordance with Appendix 1 of Hawker Siddeley Aviation Ltd., Technical News Sheet, Series: CT(104), No. 108, Issue 4, dated July 12, 1971, or an FAA-approved equivalent, and incorporate Modification 686 bolts and shims upon reassembly of the wing to fuselage lower joint on those airplanes having Modification 538 installed.

(c) If during the inspections required by subparagraphs (a)(2) or (a)(3), corrosion, pitting, fretting, or corrosion discoloration is found which cannot be removed using the procedures in Appendix 1 of Hawker Siddeley Aviation Ltd., Technical News Sheet, Series: CT(104), No. 168, Issue 4, dated July 12, 1971, or an FAA-approved equivalent, or if cracks are found in the wing main spar pick-up fitting bore, before further flight, replace the affected part with a serviceable part of the same part number.

This amendment supersedes Amendment 39–1033 (35 F.R. 11385), AD 70–15–6.

This amendment becomes effective July 31, 1972.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421, 1423; sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c))

Issued in Washington, D.C., on July 18, 1972.

C. R. MELUGIN, Jr.,
Acting Director,
Flight Standards Service.

[FR Doc.72–11425 Filed 7–24–72;8:49 am]

[Docket No. 12062, Amdt. 39–1491]

PART 39—AIRWORTHINESS DIRECTIVES

Rolls-Royce Dart Series Models 506, 510, 511, 514, 525 Through 529, 531, and 532 Engines and All Variants

There have been reports that during the overhaul of the first- and second-stage impellers incorporating Modification 797 that are installed on certain Rolls-Royce Dart series engines, the chemical stripping and reanodizing were accomplished without sealing off the bores. This "open bore processing" resulted in an intergranular attack on the material inside the bore and a structural weakening of those impellers. In addition, the FAA has determined that second-stage impellers incorporating certain modifications sustain a higher stress in operation than was originally calculated and that the use of those impellers beyond the service-life limits specified in this directive could result in fatigue cracks and cause engine failure. Since these conditions are likely to exist or develop in impellers of the same type design, an airworthiness directive is being issued to establish service lives for the Rolls-Royce engine impellers covered by this directive.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and contrary to the public interest and good cause exists for making this amendment effective in less than 30 days.

In consideration of the foregoing, and pursuant to the authority delegated to me by the Administrator (14 CFR 11.89), § 39.13 of Part 39 of the Federal Aviation Regulations is amended by adding the following new airworthiness directive:

ROLLS-ROYCE (1971), LTD. Applies to Dart Series Models 506, 510, 511, 514, 525 through 529, 531, and 532 engines and all variants.

Compliance required as indicated unless already accomplished.

To prevent engine failures resulting from fatigue cracks of the impellers specified in Column 2 of the following table, accomplish the following:

(a) Within the next 50 flights after the effective date of this AD or before the accumulation of the number of flights specified in Column 3, for the applicable impeller, whichever occurs later, and thereafter at intervals not to exceed the number of flights specified in Column 3, replace the applicable impellers specified in Column 2 when they are installed on the engines specified in Column 1 with impellers having the same part number or a part number approved for that engine which have not exceeded their life limits.

(Column 1) Dart engine series	(Column 2) Impellers	(Column 3) Life limits (flights)
Models 506, 510, 511, and 514 and all variants.	Second stage impellers incorporating all Pre-797 Modifications.	4,500.
	Second stage impellers incorporating Modification 797 which have not been Open Bore Processed.[1]	9,000.
	First and second stage impellers incorporating Modification 797 Open Bore Processed.[1]	1st stage—10,500 2d stage—6,000
	Second stage impeller incorporating Modification 1455.	14,000 since the incorporation of Modification 1455.
Models 525 through 529, 531, and 532 and all variants.	Second stage impellers incorporating all Pre-797 Modifications.	4,500.
	Second stage impellers incorporating Modification 797 which have not been Open Bore Processed.[1]	14,000.
	First and second stage impellers incorporating Modification 797 Open Bore Processed.[1]	1st stage—9,000 2d stage—11,000

[1] For purposes of this AD "Open Bore Processed" means that the impeller during an overhaul subsequent to the incorporation of Modification 797, has been stripped and anodized or anodized, without the impeller bore being fitted with blanks, or that leakage past the blanks has occurred due to an improper fitting of the blanks.

(b) For the purpose of complying with this AD a flight shall constitute an engine operating sequence consisting of an engine start, takeoff operation, landing and engine shutdown. The number of flights may be determined by actual count or, subject to approval, by the FAA assigned maintenance inspector, by dividing the impeller time in service by the operator's fleet average time per flight.

This amendment becomes effective July 31, 1972.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421, and 1423; sec. 6(c) of the Department of Transportation Act, 49 U.S.C. 1655(c))

Issued in Washington, D.C., on July 18, 1972.

C. R. MELUGIN, Jr.,
Acting Director,
Flight Standards Service.

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[Docket No. 12061, Amdt. 39-1490]

PART 39—AIRWORTHINESS DIRECTIVES

S.N.I.A.S. Alouette Astazou SA3180, SA318B, and SA318C Helicopters

Pursuant to the authority delegated to me by the Administrator (14 CFR 11.89), an airworthiness directive was adopted on June 15, 1972, and made effective immediately as to all known U.S. operators of Societe Nationale Industrielle Aerospatiale (S.N.I.A.S.—formerly SUD Aviation) Alouette Astazou SA3180, SA318B, and SA318C helicopters which have not been modified in accordance with Aerospatiale Service Bulletin No. 65.82 dated October 25, 1971, or an FAA-approved equivalent. The directive required repetitive replacement of flexirac union assemblies, either P/N L.16.03 or P/N LS.16.03, with new assemblies of the same part number or reinforcement of the assemblies because of reports of cracks on the flanges of the half sleeves fitted on the flexirac union assembly of the main gearbox to oil cooler oil lines which could result in severe oil leaks, loss of lubrication to the main gearbox, and possible main gearbox failure.

Since it was found that immediate corrective action was required, notice and public procedure thereon was impracticable and contrary to the public interest and good cause existed for making the airworthiness directive effective immediately as to all known U.S. operators of Societe Nationale Industrielle Aerospatiale (S.N.I.A.S.—formerly SUD Aviation) Alouette Astazou SA3180, SA318B, and SA318C helicopters not modified in accordance with Aerospatiale Service Bulletin No. 65.82, dated October 25, 1971, or an FAA-approved equivalent by individual telegrams dated June 15, 1972. These conditions still exist and the airworthiness directive, with an editorial change to the applicability statement to correct a telegraphic error, is hereby published in the FEDERAL REGISTER as an amendment to § 39.13 of Part 39 of the Federal Aviation Regulations to make it effective as to all persons.

SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE (S.N.I.A.S.—FORMERLY SUD AVIATION). Applies to Alouette Astazou SA3180, SA318B, and SA318C helicopters which have not been modified in accordance with Aerospatiale Service Bulletin No. 65.82 dated October 25, 1971, or an FAA-approved equivalent.

Compliance required as indicated.

To prevent possible cracks or failures of the half sleeves fitted on the flexirac unions on the main gearbox to cooler oil line, accomplish the following in accordance with Aerospatiale Service Bulletin No. 05.39, amended November 10, 1971, or an FAA-approved equivalent.

(a) For helicopters fitted with half sleeves, P/N L.16.06, on-flexirac union assemblies, P/N L.16.03, before further flight unless already accomplished within the last 100 hours' time in service, and thereafter at intervals not to exceed 100 hours' time in service on the half sleeves, replace the half sleeves, P/N L.16.06, by replacing the assembly, P/N L.16.03, with a new assembly of the same part number.

(b) For helicopters fitted with half sleeves, P/N LS.16.06, on flexirac union assemblies, P/N L.S.16.03, before further flight unless already accomplished within the last 800 hours' time in service, and thereafter at intervals not to exceed 800 hours' time in service on the half sleeves, replace the half sleeves, P/N LS.16.06, by replacing the assembly, P/N LS.16.03, with a new assembly of the same part number.

(c) Replacement of the half sleeves in accordance with paragraphs (a) and (b) may be discontinued when the flexirac union on the main gearbox oil pump is reinforced in accordance with Aerospatiale Service Bulletin No. 65.82 dated October 25, 1971, or an FAA-approved equivalent.

This amendment is effective upon publication in the FEDERAL REGISTER (7-25-72) as to all persons except those persons to whom it was made immediately effective upon receipt of the telegram dated June 15, 1972, which contained this amendment.

(Sec. 313(a), 601, 603, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c))

Issued in Washington, D.C., on July 18, 1972.

C. R. MELUGIN, Jr.,
Acting Director,
Flight Standards Service.

[FR Doc.72-11427 Filed 7-24-72;8:49 am]

[Docket No. 11437, Amdts. 43-15, 61-59, 91-101, 135-33]

PART 43—MAINTENANCE, PREVENTATIVE MAINTENANCE, REBUILDING, AND ALTERATIONS

PART 61—CERTIFICATION; PILOTS AND FLIGHT INSTRUCTORS

PART 91—GENERAL OPERATING AND FLIGHT RULES

PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS OF SMALL AIRCRAFT

Large and Turbine-Powered Multiengine Airplanes

The purpose of this amendment is to add a new Subpart D to Part 91 prescribing general operating rules for large or turbojet-powered multiengine airplanes and an inspection program for large and turbine-powered multiengine airplanes (turbopropeller and turbojet powered). The inspection program also applies to turbine-powered multiengine airplanes operated by the holder of an ATCO certificate under Part 135.

Interested persons have been afforded the opportunity to participate in the making of these regulations by a notice of proposed rule making issued as Notice 71-32 on October 7, 1971 (36 F.R. 19507). Approximately 275 comments were received from various individuals, aeronautical associations, and government agencies in response to that notice. The comments have been very helpful in resolving the many issues involved in the formulation of this final rule.

Comments received from the National Business Aircraft Association (NBAA) were directed to two aspects of the notice. The kind of operations that could be conducted under § 91.181 of the proposal, and the operations and inspection rules set forth in §§ 91.183-91.219. With respect to the first aspect of the rules, NBAA recommended changes in the applicability of Subpart D to include a fuller use of aircraft in private carriage. If a fuller use of the aircraft is permitted, the NBAA favors the safety rules set forth in §§ 91.183-91.219, with certain changes described in detail herein.

Comments received from other associations and government agencies ranged from a qualified opposition to a complete agreement with the proposed rules. For example, the Aircraft Owners and Pilots Association believes the rules should apply to a corporate operator, but not to a private operator. The General Aviation Manufacturing Association believes the rules should apply to airplanes having 10 or more passenger seats since the 12,500-pound dividing line is no longer valid. The Air Transport Association believes the rules should only apply to operators of aircraft who do not hold an air carrier operating certificate, and ferry flights, training flights, check flights, etc., conducted by the holders of those certificates should be excepted from the proposed rules. The National Air Transportation Conference believes the rules should apply only to passenger-carrying aircraft. At the other end of the spectrum, the Air Line Pilots Association and the Chicagoland Business Pilots Association support the proposed rules as a step toward improving air safety for all operators. The National Transportation Safety Board favors the rules, while the British Air Registration Board recommends that the takeoff runway requirements of proposed § 91.205 be replaced with a rule similar to § 91.37 (b) and (c).

Approximately 250 comments were received from individuals and corporations. While most of the comments received from the corporate operators endorsed the position of the NBAA, some of those comments recommended different or additional changes. A few commentators were opposed to all the proposed operating or safety rules, except those rules requiring flying equipment and flight attendants for passenger-carrying aircraft.

Many of the commentators expressed the opinion that the subpart should not apply to small turbopropeller-powered multiengine airplanes. It is their opinion that some small supercharged reciprocating engine-powered airplanes have performance capabilities similar to small turbopropeller-powered airplanes. Yet, under the proposed rules those reciprocating engine-powered airplanes would not be required to be operated under the provisions of Subpart D. Upon further consideration we are persuaded that there is no demonstrated need at this time to require small turbopropeller-powered multiengine airplanes to be operated under the rules of Subpart D. This decision, however, does not apply to the inspection program requirements which, in our opinion, should be required for all turbine-powered multiengine airplanes (turbopropeller- and turbojet-powered airplanes) as proposed in the notice. Section 91.181(a) as adopted herein reflects this change in the applicability of Subpart D.

For many years the term "compensation," as used in the definition of a commercial operator and the applicability provisions of Part 121, has been construed in its legal sense which does not limit that term to an element of profit, but includes any reimbursement for the expenses for the operation of the aircraft. Comments received from the corporate operators strongly urged a change in that policy. They contend that in most cases involving wet-lease agreements (lease of an aircraft with flight crew) a charge is made for the operating expenses of the aircraft solely for the purpose of complying with the requirements of the U.S. Internal Revenue Service—not for the purpose of making a profit. Therefore, in response to the request for comments in regard to time sharing and interchange agreements, these commentators urged that a monetary charge be permitted under either of these arrangements, so long as there is no profit motive involved in the charges made.

As stated in the preamble to NPRM 71–32 the decision to proceed with the upgrading of Part 91 for large and turbine-powered multiengine airplanes is an important threshold step in the FAA policy to remove, to the extent possible, those differences in the safety standards that are primarily economic in nature and result in unnecessary restrictions or limitations on aircraft operators. In accordance with that policy, the need for different or additional safety standards for corporate operations should be resolved on the basis of safety, rather than economics or juristic semantics. Safetywise, we have determined that neither the relationship of the corporations nor the type of compensation received for the services rendered should be relevant or controlling under the standards of the new Subpart D for the various corporate kinds of operations that do not involve common carriage.

In order to make this change in policy clear to all interested persons, § 91.181(b) includes a list of the kinds of operations that may be conducted under Subpart D. In addition § 91.181(c) of Subpart D expressly provides that charges covering the normal operating expenses of the aircraft and salary of the crew may be made under a time sharing or interchange agreement as defined in that section. This policy also applies to a corporation regardless of its relationship, if any, to the corporation for which the carriage is conducted. Accordingly, the application of Subpart D to a corporate operator will no longer be dependent upon whether that operator is a parent or subsidiary corporation, or a member of a conglomerate. It should be noted, however, that if a corporation is established solely for the purpose of providing transportation to the parent corporation, a subsidiary, or other corporation, the foregoing policy does not apply. In that case, the primary business of the corporation operating the airplane is transportation and the carriage of persons or goods for any other corporation, for a fee or charge of any kind, would require the corporation operating the airplane to hold a commercial operator certificate under Part 121 or 135, as appropriate.

Some of the commentators requested expansion of the applicability of Subpart D to permit a jointly owned airplane to be operated under the safety standards of that subpart when the flight crew is furnished and employed by one of the joint owners. In regard to such operations we have concluded that if the flight crew is employed and furnished by one of the joint owners and continues in the employ of that owner when the airplane is used by another joint owner, it will be presumed that the joint owner employing and furnishing the flight crew is the operator of the airplane within the meaning of the Federal Aviation Regulations. Unless otherwise agreed to by the owners, he is responsible for compliance with the safety regulations applicable to that flight, even though the joint owner using the airplane at the particular time has the authority to specify the destination of the flight and the persons or cargo that may be carried on that flight. Safetywise, we perceive no reason under those circumstances to require the joint owner, as the operator of that airplane, to hold a commercial operator certificate. Accordingly, § 91.181(c) has been amended to permit such operations to be conducted under subpart D. If any charge is made by the operator in excess of the normal operating expenses of the flight, including fuel, oil, hangar and landing fees, and salary of the crew, the operation, of course, may not be conducted under Subpart D. When such charges are made, the operator must hold a commercial operator certificate and conduct the operation under the provisions of Part 121 or 135, as appropriate.

The carriage of persons on an airplane for the purpose of selling to them land, goods, or other property (including franchises) was described in the preamble to NPRM 71–32 as a corporate aircraft operation. However, the preamble did not further articulate the FAA policy in regard to such operations when conducted as an incident to the business of the corporation operating the aircraft. In recent years there has been an increase in the use of corporate aircraft for the carriage of prospective customers, especially as an incident to the business of real estate development and sales. It has been the policy of the FAA to permit the corporation to transport those customers on its aircraft without holding a commercial operator certificate, so long as no charge is made for the transportation and common carriage is not involved. It is our opinion that this policy should be continued without change. Accordingly, § 91.181(b)(9) of the rule as adopted herein expressly permits the carriage of prospective customers under the rules of Subpart D. However, no charge of any kind may be made for that carriage, regardless of whether the charge represents the customer's pro rata operating expenses for the flight, or a loss. To permit a charge of any kind for the carriage of the customers would require constant surveillance and time-consuming investigations by FAA inspectors to determine if the charge represents an amount that is permitted under the regulations, or is in fact considered compensation as that term is used in the definition of a commercial operator. Moreover, it should be noted that such operations may, under certain circumstances, result in the car-

riage of persons as a common carrier for compensation or hire. In that event, the person operating the airplane may be required to hold a certificate of public convenience and necessity or other appropriate economic authority from the Civil Aeronautics Board in addition to an air carrier operating certificate from the Administrator.

The preamble to NPRM 71-32 stated that a GENOT was issued by the FAA to make it clear that a "manufacturer" or "aircraft sales company" did not need a commercial operator certificate to demonstrate aircraft in flight to a prospective customer when that customer is charged a fee to defray the normal operating expenses of the flight, including fuel, oil, hangar or landing fees, and salary of the flight crew. In our judgment the authorization should be equally applicable to the owner of the aircraft regardless of whether he is a manufacturer or aircraft salesman. For this reason the language of § 91.181(b)(3), as proposed in the notice, did not limit such authorization to a "manufacturer" or "aircraft sales company." Since there were no objections to that proposal, the rule as adopted herein permits such customer demonstrations by the owner of the airplane as well as the manufacturer, or sales company.

Inasmuch as the foregoing policies permit a greater use of corporate aircraft under joint ownership, time sharing, and interchange agreements, it appears desirable to restate herein the FAA policy in regard to the operation of an airplane under those agreements when they constitute a wet lease (the lease of an aircraft with flight crew). When the lessor furnishes both the aircraft and flight crew, there is a presumption that the operational control and safety responsibility for the aircraft remains in the hands of the lessor during the lease agreement and he becomes the operator of the aircraft as that term is used in the Federal Aviation Regulations. This policy conforms with the policy recently adopted by the Civil Aeronautics Board in those cases involving the lease of aircraft with crew by foreign air carriers or other foreign persons (14 CFR Part 218, as amended by ER-716; 36 F.R. 23146).

Whenever the aircraft and flight crew are furnished by separate and unrelated persons, as stated in the preamble to NPRM 71-32, it is presumed that the lessee of the aircraft is the operator of that aircraft within the meaning of the Federal Aviation Regulations. This presumption is not true, however, when the person furnishing the flight crew exercises control over all phases of the operation of the aircraft requiring any aviation expertise, and leaves to the lessee of the aircraft only those decisions normally made as to what and who is transported. Under those circumstances, the National Transportation Safety Board has upheld the FAA's position that the person furnishing the flight crew is the operator of the aircraft.

In an effort to make the parties to a lease agreement more fully aware of their responsibilities, the FAA recently proposed an amendment to § 91.54 of the FAR's that would require a "truth in leasing" clause to be inserted in leases involving certain aircraft (NPRM 71-35; 36 F.R. 20768). Among other things, the truth-in-leasing clause inserted in the lease would identify the person responsible under the lease for the operation of the aircraft, and contain a certification by that person that he understands his responsibility for compliance with the applicable Federal Aviation Regulations. The proposed rule would also require a copy of the lease to be carried in the leased aircraft and made available for review upon request by the Administrator. If adopted, this rule should preclude the unintentional assumption of responsibility for operation agreement.

In view of the comments received in response to the notice, another change in the applicability of Subpart D was made. This change involved the carriage of goods or property on an airplane as an incident to a business other than transportation. Although it has been the policy of the FAA to permit a manufacturer to carry his materials from one factory to another for processing into a finished product, that policy did not further permit the carriage of the finished product to a customer or a distributor if a charge, direct or indirect, was made for such transportation. While this limitation rested upon a proper legal interpretation of the term compensation, it is no longer necessary under the safety standards of Subpart D. Accordingly, under the rules as adopted herein, the FAA will permit the carriage of property (other than mail) on an airplane operated by a person in the furtherance of a business (other than transportation), when the carriage is incidental to that business and no charge is made for that carriage in excess of the normal operating expenses of the flight. Although this change in policy permits a greater use of an airplane as an incident to a business or profession, it does not change the FAA policy in regard to the carriage of goods or property by airplane when such carriage is the primary business of the operator of that airplane. When such carriage is in fact a major enterprise in itself, it may not be conducted by any person unless he holds an operating certificate under Part 121 or 135, as appropriate.

As previously stated, one commentator recommended that the rules in Subpart D should not apply to ferry or training flights conducted by an air carrier or commercial operator holding an operating certificate under Part 121. The language of § 91.181 of the proposed subpart expressly applies to ferry or training flights since those flights are not required to be conducted under the rules of Part 121 or 135 of the Federal Aviation Regulations. If those flights are also excepted from the operating rules of Subpart D, it would result in a dual standard of safety for large airplanes or turbojet-powered multiengine airplanes when passengers or cargo are not carried for compensation or hire. Such a policy is undesirable and would defeat the purpose of the rules prescribed in Subpart D. However, to the extent that a particular rule in Subpart D is not appropriate for a ferry or training flight, the rule includes an exception for those flights.

The recommendation that Subpart D applies to aircraft having 10 or more passenger seats, rather than large airplanes as defined in Part 1 of the Federal Aviation Regulations, goes beyond the scope of the notice and is not discussed herein.

The descriptive list in § 91.181(b) containing the kinds of operations that may be conducted under Part 91 and Subpart D applies to large and turbojet airplanes. Although this list appears to be equally applicable to small and other airplanes not covered by Subpart D, for the convenience of all operators a separate rulemaking action will be initiated to expressly include that list and any changes thereto that are deemed appropriate for such airplanes in Subpart A of Part 91.

Operating rules. In order to facilitate discussion of the safety rules as adopted herein, each rule is listed under a separate heading and discussed in the light of the comments received.

1. *Flying equipment and operating information.* The bulk of the comments received supported the provisions of § 91.183 as proposed. However, two changes have been made to that section. In order to preclude the use of a penlight or other inadequate light as a substitute for the type of flashlight normally carried on an airplane for emergency use, § 91.183(a)(1) has been changed to require a flashlight having at least two size "D" cells or equivalent. A new paragraph (d) has been added to make it clear that the equipment prescribed in that section is to be used by the pilot in command and other members of the flight crew, when appropriate. Finally, to correct a typographical error in § 91.183(a)(4) as proposed, the comma appearing after the symbol VFR has been deleted. As corrected the equipment specified in that subparagraph applies to "IFR, VFR over-the-top, or night operations."

2. *Familiarity with operating limitations and emergency equipment.* With the exception of approximately seven comments, all comments received supported the provisions of § 91.185 as proposed. Those comments received in opposition to this section were not opposed to the substance of the rule, but the policy of issuing a rule containing what they believe to be a good operating practice. We disagree with such a regulatory policy for those practices that must be accomplished for the safety of the flight; accordingly, the rule is adopted without change.

3. *Equipment requirements; Over-the-top, or night VFR operations.* No substantive comments were received in response to the provisions of § 91.187 and it is adopted without change.

4. *Survival equipment for overwater operations.* Several changes were made to the provisions of § 91.189 in response to the comments received.

The first change involves the substitution of "more than 30 minutes flying time

or a horizontal distance of more than 100 nautical miles from the nearest shoreline" for the term "extended overwater operations" (defined in Part 1 of the FAR's to mean a horizontal distance of more than 50 nautical miles from the nearest shoreline).

Comments received in response to the proposal strongly urged the increased distance for general aviation operations. As pointed out in some comments such equipment because of its weight is not kept on board an airplane permanently, but is usually rented and installed in the airplane when needed for a particular flight. Therefore, if the provision is adopted as proposed, the general aviation operators would be unable to use certain offshore routes now designated beyond 50 nautical miles from shore, unless they carried the required survival equipment which, they contend, would place an unnecessary weight restriction on their airplanes for operation over such routes. Moreover, as pointed out by some commentators, section 6.3.3 of Annex 6 to the Convention on International Civil Aviation only requires lifesaving rafts and survival radio equipment when the flight over water is more than 100 nautical miles from the shoreline for a single-engine airplane, and more than 200 nautical miles for multiengine airplanes with one engine inoperative performance. We are persuaded in the light of the comments received to increase the offshore distance from 50 to 100 nautical miles, but such equipment will also be required, regardless of the distance from the shoreline, if the flight is more than 30 minutes flying time from the nearest shoreline.

Paragraph (a) of § 91.189 as adopted herein still requires a life preserver or approved flotation means for each occupant of the airplane when a takeoff is made for a flight over water more than 50 nautical miles from the nearest shoreline. This distance conforms with the requirement for such equipment specified in § 6.3.3 of Annex 6. As used in § 91.189, an approved flotation means includes such means as buoyant seat cushions or other means that meet the requirements of TSO–C72.

To avoid the possibility of an unintentional violation by those pilots who find it necessary to fly over water beyond the distances specified in § 91.189 due to an ATC vector, or route change to avoid adverse weather, the rule requires the equipment only for a planned or intended flight over water beyond the distances specified.

The third change to § 91.189 involves the provision in paragraph (b) requiring the installation of the liferafts and other equipment in conspicuously marked and approved locations. The commentators point out that this requirement is inappropriate for those airplanes carrying equipment which is rented and installed on the airplane only for the duration of a particular trip. Upon reconsideration of that proposal in the light of the comments received we agree that the requirement for the stowage of the equipment in an approved location may be eliminated. However, we are not persuaded that the requirement for the conspicuous marking of the location at which the equipment is installed should be changed.

5. *Radio equipment for overwater operations.* For the reasons stated in item 4, the radio equipment requirements of § 91.191 have also been changed to require that equipment for a takeoff of a flight over water that is planned or intended to be conducted over water more than 100 nautical miles or 30 minutes flying time from the nearest shoreline.

A new paragraph (c) has been added to the rule as adopted to permit operation of the flight under certain conditions when the specified items of equipment malfunction or become inoperative.

Most of the comments received did not favor the marker-beacon receiver required by the proposed § 91.191(a)(4). Upon further review of this requirement the FAA agrees that a requirement for a marker-beacon receiver would serve no useful purpose except in those areas where there are adequate marker-beacon facilities on the surface. Such facilities do not exist for operations over water.

It is our opinion, however, that a marker-beacon receiver should be required for all IFR flights in other areas having marker beacons. Since such a requirement goes beyond the scope of the proposed § 91.191, the FAA intends to cover the substance of such a proposal in a separate rule making action.

In response to the suggestion of one commentator, the term "ground facility" has been changed to "surface facility" because the requirements of that section deal with overwater operations.

6. *Emergency equipment.* Many of the commentators recommended the following changes in the proposed § 91.193:

(a) Require the hand fire extinguisher specified in § 91.193(c)(2) to be located convenient to the flight deck, instead of on the flight deck.

(b) Require the hand fire extinguisher specified in § 91.193(c)(3) on airplanes accommodating more than nine passengers, instead of six passengers as proposed in that section.

(c) Delete the requirement in § 91.193 (e) for a crash ax.

Upon further review, the FAA agrees that § 91.193(c)(2) should permit greater flexibility for the physical location of the hand fire extinguisher required by that section. Accordingly, that section has been changed to require one hand fire extinguisher located on or near the flight-deck in a place that is readily accessible for use by the flightcrew. However, we are not persuaded that the hand fire extinguisher requirement should be modified to require such an extinguisher in the passenger compartment of an airplane that accommodates nine or more passengers, instead of more than six passengers as proposed in the notice.

The crash ax requirement has been retained in § 91.193(e) for those airplanes accommodating more than 19 passengers. Thus, any airplane for which one or more flight attendants may be required under § 91.215 will be equipped with a crash ax for use in an emergency.

7. *Flight altitude rules.* Most of the commentators urged the FAA to lower the minimum VFR altitude proposed in § 91.195 from 1,000 feet above the surface to 500 feet above the surface. This change, some pointed out, would conform with the minimum altitude of 500 feet prescribed in § 135.91 for air taxi operators. Others recommended that the minimum-altitude rule also include an exception for pipeline patrol, aerial surveying, and other operations for which low-level flying is necessary. Those comments appear to be based on a misunderstanding of the rule. Under the provisions of § 91.195(b)(2) as proposed and as adopted herein, such operations could be conducted under a waiver issued in accordance with the provisions of § 91.63.

We are not persuaded that the minimum altitude for VFR operations should be lowered to 500 feet above the surface. This is especially true since the subpart applies to large and turbojet-powered multiengine airplanes. Therefore, for the reasons stated in the preamble to the notice, § 91.195 prescribes a 1,000-foot minimum flight altitude for VFR.

8. *Smoking and safety belt signs.* The majority of the commentators expressly favored the provisions of proposed § 91.197. Therefore, for the reasons stated in the preamble § 91.197 is adopted as proposed.

9. *Passenger briefing.* Many of the corporate aircraft operators stated that repetitive briefings of the same passengers in regard to the same airplane are unnecessary and serve no useful purpose. The FAA agrees that repetitive briefings of those passengers who fly with the same pilots in the same airplanes on a frequent or regular basis is unnecessary. It was not intended in the proposed rule to require such repetitive briefings. To make this clear, the language of § 91.199 (b) expressly provides that an oral briefing need not be given when the pilot in command determines that the passengers are familiar with the contents of the briefing. This authority of the pilot in command will eliminate the need for repetitive oral briefings to the same passengers.

10. *Carry-on baggage.* Only seven comments were received in opposition to the provisions of proposed § 91.201. The comments stated that in the case of some small turbine-powered multiengine airplanes, suitable compartments would not be available for the stowage of carry-on items such as briefcases and tape recorders used en route by company officials. Since this section only applies to those airplanes having a seating capacity of more than 19 passengers, we perceive no reason why adequate space should not be made available for the stowage of carry-on baggage when that baggage is not being used on the airplane. Accordingly, the rule is adopted as proposed.

11. *Carriage of cargo.* Seven comments were received in general opposition to the provisions of proposed § 91.203. However, the vast majority of the comments received concurred with the rule. For the reasons set forth in the notice,

the rule is adopted herein without change.

12. *Operating limitations: Takeoff limitations for transport category airplanes.* Most of the commentators urged that the rule should give the pilot in command of the airplane final authority to determine whether the length of the runway is adequate to stop the airplane as required by § 91.205. They contend that this authority is necessary since runway gradient and other necessary information may not be available for some airports now used by the general aviation operators. As stated in the preamble to NPRM 71–32, the proposed § 91.205 was intended to prescribe takeoff accelerate-stop distance limitations for reciprocating engine-powered transport category airplanes similar to those prescribed in § 121.177(a)(1) for air carriers and commercial operators. Section 91.37 now provides that no person may take off any transport category airplane (other than a turbine engine powered airplane certificated after September 30, 1958) unless (1) the takeoff weight does not exceed the authorized maximum takeoff weight for the elevation of the airport of takeoff; and (2) the elevation of the airport of takeoff is within the altitude range for which maximum takeoff weights have been determined.

We believe the requirements of § 91.37 together with those in § 91.5 provide an adequate level of safety for takeoff of a transport category airplane (other than a turbojet-powered multiengine airplane certificated after September 30, 1958) without the need of the accelerate-stop distance limitations proposed in § 91.205. In place of those limitations, § 91.205 as adopted herein merely contains a cross reference to the weight limitations for transport category airplanes prescribed in § 91.37.

13. *VFR fuel requirements.* Most of the comments received in response to the VFR fuel requirements proposed in § 91.207 recommended a fuel reserve of 30 minutes at 1,500 feet above ground level (AGL). Although a reserve of 30 minutes for VFR operations is adequate, the computation of that fuel at 1,500 feet AGL may place an undue burden upon the operators. Accordingly, § 91.207 as adopted herein requires a fuel reserve of at least 30 minutes for VFR operations.

14. *Operating in icing conditions.* Most of the commentators recommended that § 91.209 should be changed to permit the pilot of an airplane to have final authority to make the flight if he believes after an evaluation of the available data and other pertinent factors that the flight can be conducted safely.

Under the provisions of that section, as proposed, the pilot may ignore a forecast of icing conditions if the current weather reports and other briefing information indicate that the icing conditions reported in the forecast will not be encountered en route. We believe that further authority for the pilot to ignore reports of icing conditions that may be encountered en route may establish a questionable operating practice.

Some of the commentators felt that the proposal in § 91.209(b)(1) restricting flights into a known or forecast "light" icing condition was unnecessary. We agree and have removed that restriction from the rule as adopted herein.

15. *Flight engineer requirements.* Most of the commentators did not express a recommendation for or against the flight engineer requirement in proposed § 91.211. Some commentators, however, were of the opinion that the rule was unnecessary since the need for a flight engineer on an airplane is determined during its type certification based upon cockpit configuration, pilot workload, and other pertinent factors.

Part 121 requires a flight engineer on certain airplanes certificated before January 2, 1964, with a maximum certificated takeoff weight of more than 80,000 pounds, even though a flight engineer is not required as a part of the type certification of those airplanes. This decision was reached after extensive study and evaluation and is still applicable to those airplanes when operated under Part 121. We are not persuaded that a flight engineer is not needed on those airplanes simply because they are not operated under Part 121. Accordingly, the provisions of § 91.211 are adopted without change.

16. *Second-in-command requirements.* The majority of the comments favored the second-in-command requirements proposed in § 91.213. In view of the change in the applicability of Subpart D, the rule as adopted herein only applies to large airplanes and turbojet-powered multiengine airplanes. In the preamble to the proposed rule we noted that NPRM 71–8A (36 F.R. 11865) would amend Part 61 to include recent experience and other qualifications for the second in command of an airplane type certificated for more than one pilot. We have determined that the second in command, when required by § 1.213, should meet the qualification standards proposed in that NPRM without further delay. Accordingly, § 61.47b as proposed in that notice is redesignated as § 61.46, and adopted herein as an amendment to Part 61. To bring this requirement to the attention of the operators concerned, a new paragraph (b) has been added to § 91.213 requiring a person acting as second in command of any large airplane or turbojet-powered multiengine airplane, type certificated for more than one pilot, to meet the qualifications prescribed in § 61.46 as adopted herein.

The portions of NPRM 71–8A pertaining to the pilot in command proficiency requirements and those requirements pertaining to the second in command of airplanes not subject to Subpart D, require further study and evaluation and no final action will be taken on that portion until the study is completed.

To accommodate those airplanes having only one pilot station, such as former military airplanes certificated for special operations, § 91.213 as adopted permits an airplane having only one pilot station to be operated under an authorization from the Administrator.

Finally, to make it clear that the qualification requirements of the new § 61.46 do not apply to a second in command receiving required flight training, § 61.46 excepts those flights when passengers or cargo are not carried.

17. *Flight-attendant requirements.* The majority of the comments received in response to the notice made no recommendation for or against the flight-attendant provisions in § 91.215. As proposed, that section required each flight attendant to be "familiar" with the functions to be performed and to be "capable" of using the emergency equipment installed on the airplane for the performance of those functions. To insure that each flight attendant meets those requirements, § 91.215, as adopted herein, requires the flight attendant to demonstrate to the pilot in command that he or she meets the requirements for a flight attendant as prescribed in that section.

18. *Inspection program.* As proposed, the inspection program requirements of § 91.217 applied to large airplanes and turbine-powered multiengine airplanes (turbojet and turboprop). In addition, they were also applicable to small turbine-powered multiengine airplanes operated by the holder of an ATCO certificate under Part 135. For the reasons previously stated, there is no change in the applicability of the inspection program requirements.

Most of the comments received generally concurred with the inspection provisions contained in the proposed § 91.217. Supported by individual comments from its members, the NBAA recommended that the rule should provide for the use of a commercially available inspection program based upon the use of a computer. Recognizing that large or turbine-powered multiengine airplanes are complex and for the most part systems oriented, these operators are to a great extent dependent upon the manufacturer's recommendations for a proper inspection program. To facilitate the implementation of these programs, some aircraft manufacturers have developed satisfactory continuous inspection programs utilizing computers that may also be utilized by the aircraft operator in nonaviation areas of his business. The FAA has no objection to such an inspection program and wishes to make it clearly understood that the inspection program can be used under the authority of § 91.217(b)(5) if it is approved by the local FAA District Office.

The NBAA and its members requested deletion of the provision in the proposed § 91.217(a) that requires replacement of life-limited parts specified in the "manufacturers' information" for the airplane concerned. The commentators were of the opinion that the manufacturers' information in regard to replacement of life-limited parts should be considered as a recommendation, but should not be mandatory. The life-limited parts referred to in the proposed rule were intended to be those required by the Administrator. Usually life limits are established during the type certification of a product and either listed in the FAA

type certification data sheet, or product specification that is a part of the type certificate. Sometimes, for the convenience of the operator, the manufacturers' maintenance instructions also list life-limited parts that are made mandatory in the FAA type certification data sheet or product specification. To eliminate any misunderstanding in regard to the replacement of life-limited parts, the language of § 91.217(a) has been changed to require compliance with the replacement times for life-limited parts specified in the aircraft data sheets, or other document approved by the Administrator. The listing of such parts in the manufacturers' maintenance instructions would then be mandatory only if it is so specified in the aircraft data sheets or otherwise approved by the Administrator.

Many of the commentators were of the opinion that after the initial FAA approval of an operator's inspection program, further FAA approval is unnecessary if a change is made in that program which is clearly an accepted inspection and maintenance practice. Although any change in the inspection program requires FAA approval to retain its status as an approved program, additional approval of minor changes are unnecessary if enough flexibility is established in the initial inspection program to accommodate those changes. By obtaining approval for such an inspection program an operator may modify his program within the parameters established in that program without the need of obtaining an additional FAA approval. On the other hand, by the initial approval of such a program the FAA is assured that the modified inspection program will remain sufficient to assure the airworthiness of the airplane.

Some commentators felt that an operator should not be limited to calendar time in the selection of his continuous inspection program. As proposed, § 91.217(e)(2) required a schedule for the performance of inspections expressed in terms of time in service, calendar time, number of systems operations, or any combination of these. We believe the section as proposed clearly allows the operator to choose an inspection schedule controlled by factors other than calendar time and, therefore, no change has been made to that section as adopted herein.

Notwithstanding the choice of inspection programs given to the operator under the proposed § 91.217, some commentators were of the opinion that the FAA should prescribe a uniform inspection program for all operators. Experience indicates that such a program would be impracticable under the broad spectrum of environment in which large or turbine-powered multiengine airplanes are operated today. The cycles of operation, stage lengths, number of landings per period, and even the climatic conditions may be different for each operator. To impose a single inspection program upon all operators, we believe, would place an undue burden upon many operators without enhancing the airworthiness of their airplanes.

The Air Transport Association states that it is unnecessary for an air carrier to notify the FAA of the type of inspection selected for an airplane each time it is used for a training or ferry flight. It is to be noted that air carrier airplanes are required to be inspected in accordance with a continuous airworthiness inspection program approved under Part 121. Therefore, it is not necessary for an air carrier to submit another notice of the inspection program under § 91.217 each time the airplane is used for training or ferry flights unless a different inspection program is used.

The National Transportation Safety Board concurred with the proposed inspection rule, but suggested that the rule should include a "return to service inspection" after a specified period of nonservice. The FAA agrees that when an airplane has been out of service for an extended period of time, an inspection should be performed before it is returned to service. The time and depth of the inspection, however, are dependent upon many variables such as climate, storage area, and type of airplane. An advisory circular will be issued as soon as possible containing information and recommendations for the accomplishment of such inspections under this program or other programs permitted under the regulations. We do not believe it is desirable at this time to make such inspections mandatory until further study is made.

To make it clear that the inspection requirements specified in § 91.217 apply to the emergency equipment including the survival equipment specified in § 91.189, the words "survival equipment" have been added to the items for which an inspection is required in accordance with the inspection program selected by the operator.

The applicability provisions of § 91.181 (a) have been amended to also make it clear that the inspection requirements of § 91.217 apply to small turbine-powered multiengine airplanes operated under Part 135 and to U.S.-registered airplanes even though they are operated by a foreign air carrier under Part 129.

The preamble to NPRM 71-32 stated that for the convenience of the operators of airplanes subject to the rules in Subpart D, other provisions of Part 91 pertaining solely to airplanes subject to Subpart D would be incorporated by reference within the framework of that subpart. Upon further review of the provisions of Part 91, such an incorporation by reference is unnecessary.

In consideration of the foregoing, a new Subpart D to Part 91 and conforming amendments to Parts 43, 61, 91, and 135 of the Federal Aviation Regulations are hereby adopted, to read as set forth herein, effective October 23, 1972.

This rule is adopted under the authority of sections 313(a), 601, 602, 603, 604, and 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1422, 1423, 1424, and 1425), and section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

Issued in Washington, D.C., on July 17, 1972.

J. H. SHAFFER,
Administrator.

Subpart D—Large and Turbine-Powered Multiengine Airplanes

Sec.

AUTHORITY: The provisions of this Subpart D issued under sections 313(a), 601, 602, 603, 604, and 605, of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1422, 1423, 1424, and 1425), and sec. 6(c) of the Department of Transportation Act (49 U.S.C. 1655 (c)).

Subpart D—Large and Turbine-Powered Multiengine Airplanes

§ 91.181 Applicability.

(a) Sections 91.181–91.215 prescribe operating rules, in addition to those prescribed in other subparts of this part, governing the operation of large or turbojet-powered multiengine civil airplanes of U.S. registry. The operating rules in this subpart do not apply to those airplanes when they are required to be operated under the rules in Parts 121, 123, 129, 135, and 137 of this chapter. Sections 91.217 and 91.219 prescribe an inspection program for large and turbine-powered multiengine airplanes (turbojet and turboprop) of U.S. registry when they are operated under this subpart or Parts 129 or 137, and to small turbine-powered multiengine airplanes operated under Part 135 of this chapter.

(b) Operations that may be conducted under the rules in this subpart instead of those in Parts 121, 123, 129, 135, and 137 of this chapter, when common carriage is not involved, include—

(1) Ferry or training flights;

(2) Aerial work operations such as aerial photography or survey, or pipeline patrol, but not including firefighting operations;

(3) Flights for the demonstration of an airplane to prospective customers when no charge is made in excess of the normal operating expenses for the flights, including fuel, oil, hangar and landing fees, and salary of the flightcrew;

(4) Flights conducted by the operator of an airplane for his personal transportation, or the transportation of his guests when no charge, assessment, or fee is made for the transportation in excess of their share of the normal operating expenses for the flight, including fuel, oil, hangar and landing fees, and salary of the flightcrew;

(5) The carriage of company officials, employees, and guests of the company on an airplane operated by that company, when the carriage is within the scope of, and incidental to, the business of the company operating the airplane and no charge, assessment, or fee is made for the carriage, except that a charge that is not in excess of the normal operating expenses for the flight, including fuel, oil, hangar and landing fees, and salary of the flightcrew may be made for the carriage of a company official or employee, when the carriage is not within the scope of, and incidental to, the business of the company operating the airplane;

(6) The carriage of company officials, employees, and guests of the company on an airplane operated under a time sharing, interchange, or joint ownership agreement as defined in paragraph (c) of this section;

(7) The carriage of property (other than mail) on an airplane operated by a person in the furtherance of a business or employment (other than transportation) when the carriage is within the scope of, and incidental to, that business or employment and no charge, assessment, or fee is made for the carriage in excess of the normal operating expenses for the flight, including fuel, oil, hangar and landing fees, and salary of the flightcrew;

(8) The carriage on an airplane of an athletic team, sports group, choral group, or similar group having a common purpose or objective when there is no charge, assessment, or fee of any kind made by any person for that carriage; and

(9) The carriage of persons on an airplane operated by a person in the furtherance of a business (other than transportation) for the purpose of selling to them land, goods, or property, including franchises or distributorships, when the carriage is within the scope of, and incidental to, that business and no charge, assessment, or fee is made for that carriage.

(c) As used in this section—

(1) A "time sharing agreement" means an arrangement whereby a person leases his airplane with flightcrew to another person, and no charge is made for the flights conducted under that arrangement in excess of the normal operating expenses therefor, including fuel, oil, hangar and landing fees, and salary of the flightcrew;

(2) An "interchange agreement" means an arrangement whereby a person leases his airplane to another person in exchange for (i) equal time, when needed, on the other person's airplane, or (ii) a monetary payment that does not exceed the normal operating expenses for the flights conducted under that arrangement, including fuel, oil, hangar and landing fees, and salary of the flight crew; and

(3) A "joint ownership agreement" means an arrangement whereby one of the joint owners of an airplane employs and furnishes the flightcrew for that airplane and each of the joint owners pays a pro rata share of the normal operating expenses of that airplane, including fuel, oil, hangar and landing fees, and salary of the flightcrew.

§ 91.183 Flying equipment and operating information.

(a) The pilot in command of an airplane shall insure that the following flying equipment and aeronautical charts and data, in current and appropriate form, are accessible for each flight at the pilot station of the airplane:

(1) A flashlight having at least two size D cells, or the equivalent, that is in good working order.

(2) A cockpit checklist containing the procedures required by paragraph (b) of this section.

(3) Pertinent aeronautical charts.

(4) For IFR, VFR over-the-top, or night operations, each pertinent navigational en route, terminal area, and approach and letdown chart.

(5) In the case of multiengine airplanes, one-engine inoperative climb performance data.

(b) Each cockpit checklist must contain the following procedures and shall be used by the flight crewmembers when operating the airplane:

(1) Before starting engines.
(2) Before takeoff.
(3) Cruise.
(4) Before landing.
(5) After landing.
(6) Stopping engines.
(7) Emergencies.

(c) Each emergency cockpit checklist procedure required by paragraph (b)(7) of this section must contain the following procedures, as appropriate:

(1) Emergency operation of fuel, hydraulic, electrical, and mechanical systems.

(2) Emergency operation of instruments and controls.

(3) Engine inoperative procedures.

(4) Any other procedures necessary for safety.

(d) The equipment, charts, and data prescribed in this section shall be used by the pilot in command and other members of the flight crew, when pertinent.

§ 91.185 Familiarity with operating limitations and emergency equipment.

(a) Each pilot in command of an airplane shall, before beginning a flight, familiarize himself with the airplane flight manual for that airplane, if one is required, and with any placards, listings, instrument markings, or any combination thereof, containing each operating limitation prescribed for that airplane by the Administrator, including those specified in § 91.31(b).

(b) Each required member of the crew shall, before beginning a flight, familiarize himself with the emergency equipment installed on the airplane to which he is assigned and with the procedures to be followed for the use of that equipment in an emergency situation.

§ 91.187 Equipment requirements: Over-the-top, or night VFR operations.

No person may operate an airplane over-the-top, or at night under VFR unless that airplane is equipped with the instruments and equipment required for IFR operations under § 91.33(d) and one electric landing light for night operations. Each required instrument and item of equipment must be in operable condition.

§ 91.189 Survival equipment for overwater operations.

(a) No person may take off an airplane for a flight over water more than 50 nautical miles from the nearest shoreline, unless that airplane is equipped with a life preserver or an approved flotation means for each occupant of the airplane.

(b) No person may take off an airplane for a flight over water more than 30 minutes flying time or 100 nautical miles from the nearest shoreline, unless it has on board the following survival equipment:

(1) A life preserver equipped with an approved survivor locator light, for each occupant of the airplane.

(2) Enough liferafts (each equipped with an approved survivor locator light) of a rated capacity and buoyancy to accommodate the occupants of the airplane.

(3) At least one pyrotechnic signaling device for each raft.

(4) One self-buoyant, water-resistant, portable emergency radio signaling device, that is capable of transmission on the appropriate emergency frequency or frequencies, and not dependent upon the airplane power supply.

(c) The required liferafts, life preservers, and signaling devices must be installed in conspicuously marked locations and easily accessible in the event of a ditching without appreciable time for preparatory procedures.

(d) A survival kit, appropriately equipped for the route to be flown, must be attached to each required liferaft.

§ 91.191 Radio equipment for overwater operations.

(a) Except as provided in paragraph (c) of this section, no person may takeoff an airplane for a flight over water more than 30 minutes flying time or 100 nautical miles from the nearest shoreline, unless it has at least the following operable radio communication and navigational equipment appropriate to the facilities to be used and able to transmit to, and receive from, at any place on the route, at least one surface facility:

(1) Two transmitters.

(2) Two microphones.

(3) Two headsets or one headset and one speaker.

(4) Two independent receivers for navigation.

(5) Two independent receivers for communications.

However, a receiver that can receive both communications and navigational signals may be used in place of a separate communications receiver and a separate navigational signal receiver.

(b) For the purposes of paragraphs (a) (4) and (5) of this section, a receiver is independent if the function of any part of it does not depend on the functioning of any part of another receiver.

(c) Notwithstanding the provisions of paragraph (a) of this section, a person may operate an airplane on which no passengers are carried from a place where repairs or replacement cannot be made to a place where they can be made, if not more than one of each of the dual items of radio communication and navigation equipment specified in subparagraphs (1)–(5) of paragraph (a) of this section malfunctions or becomes inoperative.

§ 91.193 Emergency equipment.

(a) No person may operate an airplane unless it is equipped with the emergency equipment listed in this section:

(b) Each item of equipment—

(1) Must be inspected in accordance with § 91.217 to insure its continued serviceability and immediate readiness for its intended purposes;

(2) Must be readily accessible to the crew;

(3) Must clearly indicate its method of operation; and

(4) When carried in a compartment or container, must have that compartment or container marked as to contents and date of last inspection.

(c) Hand fire extinguishers must be provided for use in crew, passenger, and cargo compartments in accordance with the following:

(1) The type and quantity of extinguishing agent must be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used.

(2) At least one hand fire extinguisher must be provided and located on or near the flight deck in a place that is readily accessible to the flight crew.

(3) At least one hand fire extinguisher must be conveniently located in the passenger compartment of each airplane accommodating more than six but less than 31 passengers, and at least two hand fire extinguishers must be conveniently located in the passenger compartment of each airplane accommodating more than 30 passengers.

(d) First aid kits for treatment of injuries likely to occur in flight or in minor accidents must be provided.

(e) Each airplane accommodating more than 19 passengers must be equipped with a crash ax.

(f) Each passenger-carrying airplane must have a portable battery-powered megaphone or megaphones readily accessible to the crewmembers assigned to direct emergency evacuation, installed as follows:

(1) One megaphone on each airplane with a seating capacity of more than 60 but less than 100 passengers, at the most rearward location in the passenger cabin where it would be readily accessible to a normal flight attendant seat. However, the Administrator may grant a deviation from the requirements of this subparagraph if he finds that a different location would be more useful for evacuation of persons during an emergency.

(2) Two megaphones in the passenger cabin on each airplane with a seating capacity of more than 99 passengers, one installed at the forward end and the other at the most rearward location where it would be readily accessible to a normal flight attendant seat.

§ 91.195 Flight altitude rules.

(a) Notwithstanding § 91.79, and except as provided in paragraph (b) of this section, no person may operate an airplane under VFR at less than—

(1) One thousand feet above the surface, or 1,000 feet from any mountain, hill, or other obstruction to flight, for day operations; and

(2) The altitudes prescribed in § 91.119, for night operations.

(b) This section does not apply—

(1) During takeoff or landing;

(2) When a different altitude is authorized by a waiver to this section under § 91.63; or

(3) When a flight is conducted under the special VFR weather minimums of § 91.107 with an appropriate clearance from ATC.

§ 91.197 Smoking and safety belt signs.

(a) Except as provided in paragraph (b) of this section, no person may operate an airplane carrying passengers unless it is equipped with signs that are visible to passengers and cabin attendants to notify them when smoking is prohibited and when safety belts should be fastened. The signs must be so constructed that the crew can turn them on and off. They must be turned on for each takeoff and each landing and when otherwise considered to be necessary by the pilot in command.

(b) The pilot in command of an airplane that is not equipped as provided in paragraph (a) of this section shall insure that the passengers are orally notified each time that it is necessary to fasten their safety belts and when smoking is prohibited.

§ 91.199 Passenger briefing.

(a) Before each takeoff the pilot in command of an airplane carrying passengers shall ensure that all passengers have been orally briefed on:

(1) Smoking;

(2) Use of safety belts;

(3) Location and means for opening the passenger entry door and emergency exits;

(4) Location of survival equipment;

(5) Ditching procedures and the use of flotation equipment required under § 91.189 for a flight over water; and

(6) The normal and emergency use of oxygen equipment installed on the airplane.

(b) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a member of the crew, but need not be given when the pilot in command determines that the passengers are familiar with the contents of the briefing. It may be supplemented by printed cards for the use of each passenger containing—

(1) A diagram of, and methods of operating, the emergency exits; and

(2) Other instructions necessary for use of emergency equipment.

Each card used under this paragraph must be carried in convenient locations on the airplane for use of each passenger and must contain information that is pertinent only to the type and model airplane on which it is used.

§ 91.201 Carry-on-baggage.

No pilot in command of an airplane having a seating capacity of more than 19 passengers may permit a passenger to stow his baggage aboard that airplane except—

(a) In a suitable baggage or cargo storage compartment, or as provided in § 91.203; or

(b) Under a passenger seat in such a way that it will not slide forward under crash impacts severe enough to induce the ultimate inertia forces specified in § 25.561(b)(3) of this chapter, or the requirements of the regulations under which the airplane was type certificated.

§ 91.203 Carriage of cargo.

(a) No pilot in command may permit cargo to be carried in any airplane unless—

(1) It is carried in an approved cargo rack, bin, or compartment installed in the airplane;

(2) It is secured by means approved by the Administrator; or

(3) It is carried in accordance with each of the following:

(i) It is properly secured by a safety belt or other tiedown having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions.

(ii) It is packaged or covered to avoid possible injury to passengers.

(iii) It does not impose any load on seats or on the floor structure that exceeds the load limitation for those components.

(iv) It is not located in a position that restricts the access to or use of any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment.

(v) It is not carried directly above seated passengers.

(b) When cargo is carried in cargo compartments that are designed to require the physical entry of a crewmember to extinguish any fire that may occur during flight, the cargo must be loaded so as to allow a crewmember to effectively reach all parts of the compartment with the contents of a hand fire extinguisher.

§ 91.205 Transport category airplane weight limitations.

No person may take off a transport category airplane, except in accordance

with the weight limitations prescribed for that airplane in § 91.37.

§ 91.207 VFR fuel requirements.

No pilot may begin a flight in an airplane under VFR unless, considering wind and forecast weather conditions, it has enough fuel to fly to the first point of intended landing and, assuming normal cruising fuel consumption, to fly thereafter for at least 30 minutes.

§ 91.209 Operating in icing conditions.

(a) No pilot may take off an airplane that has—

(1) Frost, snow, or ice adhering to any propeller, windshield, or powerplant installation, or to an airspeed, altimeter, rate of climb, or flight attitude instrument system;

(2) Snow or ice adhering to the wings, or stabilizing or control surfaces; or

(3) Any frost adhering to the wings, or stabilizing or control surfaces, unless that frost has been polished to make it smooth.

(b) Except for an airplane that has ice protection provisions that meet the requirements in section 34 of Special Federal Aviation Regulation No. 23, or those for transport category airplane type certification, no pilot may fly—

(1) Under IFR into known or forecast moderate icing conditions; or

(2) Under VFR into known light or moderate icing conditions; unless the aircraft has functioning de-icing or anti-icing equipment protecting each propeller, windshield, wing, stabilizing or control surface, and each airspeed, altimeter, rate of climb, or flight attitude instrument system.

(c) Except for an airplane that has ice protection provisions that meet the requirements in section 34 of Special Federal Aviation Regulation No. 23, or those for transport category airplane type certification, no pilot may fly an airplane into known or forecast severe icing conditions.

(d) If current weather reports and briefing information relied upon by the pilot in command indicate that the forecast icing conditions that would otherwise prohibit the flight will not be encountered during the flight because of changed weather conditions since the forecast, the restrictions in paragraphs (b) and (c) of this section based on forecast conditions do not apply.

§ 91.211 Flight engineer requirements.

(a) No person may operate the following airplanes without a flight crewmember holding a current flight engineer certificate:

(1) An airplane for which a type certificate was issued before January 2, 1964, having a maximum certificated takeoff weight of more than 80,000 pounds.

(2) An airplane type certificated after January 1, 1964, for which a flight engineer is required by the type certification requirements.

(b) No person may serve as a required flight engineer on an airplane unless, within the preceding 6 calendar months, he has had at least 50 hours of flight time as a flight engineer on that type airplane, or the Administrator has checked him on that type airplane and determined that he is familiar and competent with all essential current information and operating procedures.

§ 91.213 Second in command requirements.

(a) Except as provided in paragraph (b) of this section, after January 22, 1973, no person may operate the following airplanes without a pilot who is designated as second in command of that airplane:

(1) A large airplane.

(2) A turbojet-powered multiengine airplane for which two pilots are required under the type certification requirements for that airplane.

(b) The Administrator may issue a letter of authorization for the operation of an airplane without compliance with the requirements of paragraph (a) of this section if that airplane is designed for and type certificated with only one pilot station. The authorization contains any conditions that the Administrator finds necessary for safe operation.

(c) After January 22, 1973, no person may designate a pilot to serve as second in command nor may any pilot serve as second in command of an airplane requiring two pilots under its type certification requirements, unless that pilot meets the qualifications for a second in command prescribed in § 61.46 of this chapter.

§ 91.215 Flight-attendant requirements.

(a) No person may operate an airplane unless at least the following number of flight attendants are on board the airplane:

(1) For airplanes having more than 19 but less than 51 passengers on board—one flight attendant.

(2) For airplanes having more than 50 but less than 101 passengers on board—two flight attendants.

(3) For airplanes having more than 100 passengers on board—two flight attendants plus one additional flight attendant for each unit (or part of a unit) of 50 passengers above 100.

(b) No person may serve as a flight attendant on an airplane when required by paragraph (a) of this section, unless that person has demonstrated to the pilot in command that he is familiar with the necessary functions to be performed in an emergency or a situation requiring emergency evacuation and is capable of using the emergency equipment installed on that airplane for the performance of those functions.

§ 91.217 Inspection program.

(a) No person may operate a large airplane, or a turbojet- or turbopropeller-powered multiengine airplane, unless the replacement times for life-limited parts specified in the aircraft data sheets or other documents approved by the Administrator are complied with, and after January 22, 1973, the airplane, including the airframe, engines, propellers, appliances, survival equipment, and emergency equipment is inspected in accordance with an inspection program selected under the provisions of this section.

(b) The registered owner or operator of each airplane governed by this subpart must select and after January 22, 1973, must use one of the following programs for the inspection of that airplane:

(1) A continuous airworthiness inspection program that is a part of a continuous airworthiness maintenance program currently in use by a person holding an air carrier or commercial operator certificate under Part 121 of this chapter.

(2) An approved aircraft inspection program currently in use by a person holding an ATCO certificate under Part 135 of this chapter.

(3) An approved continuous inspection program currently in use by a person certificated as an Air Travel Club under Part 123 of this chapter.

(4) A current inspection program recommended by the manufacturer.

(5) Any other inspection program established by the registered owner or operator of that airplane and approved by the Administrator under paragraph (e) of this section.

(c) Notice of the inspection program selected shall be sent to the local FAA District Office having jurisdiction over the area in which the airplane is based. The notice must be in writing and include—

(1) Make, model, and serial number of the airplane;

(2) Registration number of the airplane;

(3) The inspection program selected under paragraph (b) of this section; and

(4) The name and address of the person responsible for scheduling the inspections required under the selected inspection program.

(d) The registered owner or operator may not change the inspection program for an airplane unless he has given notice thereof as provided in paragraph (c) of this section and the new program has been approved by the FAA, where appropriate.

(e) Each registered owner or operator of an airplane desiring to establish an approved inspection program under paragraph (b)(5) of this section must submit the program for approval to the local FAA District Office having jurisdiction over the area in which the airplane is based. The program must include the following information:

(1) Instructions and procedures for the conduct of inspections for the particular make and model airplane, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, engines, propellers, and appliances, including emergency equipment required to be inspected.

(2) A schedule for the performance of the inspections that must be performed under the program expressed in terms of the time in service, calendar time,

number of system operations, or any combination of these.

§ 91.219 Availability of inspection program.

Each owner or operator of an airplane shall make a copy of the inspection program selected under § 91.217 available to—

(a) The person responsible for the scheduling of the inspections;

(b) Any person performing inspections on the airplane; and

(c) Upon request, to the Administrator.

The following amendments to Parts 43, 61, 91, and 135 of the Federal Aviation Regulations are adopted to make those parts conform with Subpart D.

1. Part 43 of the Federal Aviation Regulations is amended by adding a new subparagraph (5) to § 43.9(a) to read as follows:

§ 43.9 Content, form, and disposition of maintenance, rebuilding, and alteration records (except 100-hour, annual, and progressive inspections).

(a) *Maintenance records entries.* * * *

(5) If the work performed is an inspection required under § 91.217 of this chapter for a large airplane, or a turbojet- or turbopropeller-powered multiengine airplane, the entry must name the kind of inspection conducted (continuous airworthiness inspection program, approved inspection program, etc.) and include a statement that—

(i) The inspection was performed in accordance with the instructions and procedures for the kind of inspection program selected by the owner or operator of the airplane; and

(ii) A signed and dated list of the defects, if any, found during the inspection was given to the owner or operator of the airplane.

* * * * *

2. Part 43 of the Federal Aviation Regulations is amended by adding a new paragraph (d) to § 43.13 to read as follows:

§ 43.13 Performance rules (general).

* * * * *

(d) Each person performing an inspection required by § 91.217 for a large airplane, or a turbojet- or turbopropeller-powered multiengine airplane shall do that work in accordance with the standards prescribed in subparagraphs (1) through (5) of this paragraph for the applicable inspection program.

(1) For a continuous airworthiness inspection program (§ 91.217(b)(1) of this chapter), the standards prescribed in paragraph (c) of this section apply.

(2) For an approved aircraft inspection program (§ 91.217(b)(2) of this chapter), the standards prescribed in paragraph (a) of this section apply.

(3) For an approved continuous inspection program (§ 91.217(b)(3) of this chapter), the standards prescribed in § 43.15(a) of this part apply.

(4) For an inspection program recommended by a manufacturer (§ 91.217(b)(4) of this chapter), the standards contained in the recommendations and instructions of the aircraft, engine, propeller, or appliance manufacturer apply.

(5) For an approved inspection program (§ 91.217(b)(5) of this chapter), the standards prescribed in paragraph (a) of this section apply, except when the inspection program for the particular airplane includes other standards.

3. Part 61 of the Federal Aviation Regulations is amended by adding a new § 61.46 to read as follows:

§ 61.46 Second-in-command qualifications: Operations of large airplanes or turbojet-powered multiengine airplanes.

(a) Except as provided in paragraph (d) of this section, after January 22, 1973, no person may serve as second in command of a large airplane or a turbojet-powered multiengine airplane, type certificated for more than one required pilot flight crewmember, unless he holds—

(1) At least a current private pilot certificate with appropriate category and class ratings; and

(2) An appropriate instrument rating in the case of flight under IFR.

(b) Except as provided in paragraph (d) of this section, after January 22, 1973, no person may serve as second in command of a large airplane or a turbojet-powered multiengine airplane, type certificated for more than one required pilot flight crewmember, unless since the beginning of the 12th calendar month before the month in which he serves, he has, with respect to that type airplane:

(1) Familiarized himself with all information concerning the airplane's powerplant, major components and systems, major appliances, performance and limitations, standard and emergency operating procedures, and the contents of the approved airplane flight manual, if one is required.

(2) Performed and logged—

(i) Three takeoffs and three landings to a full stop as the sole manipulator of the flight controls; and

(ii) Engine-out procedures and maneuvering with an engine out while executing the duties of a pilot in command. This requirement may be satisfied in an airplane simulator acceptable to the Administrator.

For the purpose of meeting the requirements of subparagraph (2) of this paragraph, a person may act as second in command of a flight under day VFR or day IFR, if no persons or property, other than as necessary for the operation, are carried.

(c) If a pilot complies with the requirements in paragraph (b) of this section in the calendar month before, or the calendar month after, the month in which compliance with those requirements is due, he is considered to have complied with them in the month they are due.

(d) This section does not apply to a pilot who—

(1) Meets the pilot in command proficiency check requirements of Part 121, 123, or 135 of this chapter;

(2) Is designated as the second in command of an airplane operated under the provisions of Part 121, 123, or 135 of this chapter; or

(3) Is designated as the second in command of an airplane for the purpose of receiving flight training required by this section and no passengers or cargo are carried on that airplane.

§ 91.1 [Amended]

4. Part 91 of the Federal Aviation Regulations is amended by changing the words "Subparts A and C of this part," as they appear in § 91.1(b)(3), to read "Subparts A, C, and D of this part."

§ 91.165 [Amended]

5. Part 91 of the Federal Aviation Regulations is amended by changing the words "§§ 91.169 and 91.170," appearing in § 91.165, to read "Subpart D or § 91.169 of this part, as appropriate, and § 91.170 of this part."

6. Part 91 of the Federal Aviation Regulations is amended by adding a new subparagraph (5) to § 91.169(c) to read as follows:

§ 91.169 Inspections.

* * * * *

(c) * * *

(5) Any large airplane, or a turbojet- or turbopropeller-powered multiengine airplane, that is inspected in accordance with an inspection program authorized under Subpart D of this part.

§ 135.60 [Amended]

7. Part 135 of the Federal Aviation Regulations is amended by changing the words "§ 91.169 or § 91.171," appearing in paragraph (a) of § 135.60 to read "Part 91."

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[Airspace Docket No. 72-SW-14]

PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, AND REPORTING POINTS

Alteration of Transition Area

On June 23, 1972, a notice of proposed rule making was published in the FEDERAL REGISTER (37 F.R. 12400) stating that the Federal Aviation Administration was considering amendments to Part 71 of the Federal Aviation Regulations that would alter Control 1215 and the Texas transition area.

Interested persons were afforded an opportunity to participate in the proposed rule making through the submission of comments. All comments received were favorable.

In consideration of the foregoing, Part 71 of the Federal Aviation Regulations is amended, effective 0901 G.m.t., September 14, 1972, as hereinafter set forth.

a. In § 71.163 (37 F.R. 2048) Control 1215 is amended to read:

CONTROL 1215

That airspace south of Galveston, Tex., bounded by a line beginning at lat. 29°19'00" N., long. 94°40'30" W., thence to lat. 28°-15'00" N., long. 92°07'00" W., to lat. 28°-